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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,571

10/24/2003

Shigeru Nemoto

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EXAMINER

VU, QUYNH-NHU HOANG

ART UNIT

PAPER NUMBER

3763

NOTIFICATION DATE

DELIVERY MODE

02/24/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/691,571	Applicant(s) NEMOTO, SHIGERU	
	Examiner QUYNH-NHU H. VU	Art Unit 3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-20, 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) 3-13 and 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 14, 15, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/05/09</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Amendment filed on 12/17/09 has been entered.

Claims 1, 2, 14-15, 30-31 are present for examination.

Claims 3-13, 16, 18-20 are withdrawn.

Claims 17 and 21-29 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bae et al. (US 6,055,985) in view of Ilic (US 7,443,396).

Regarding claim 1, Bae discloses a liquid injector comprising: image displaying means for displaying a plotting chart image having a vertical axis and a horizontal axis (Figs. 1-10B). In order to make the graph image display in Figs. 1-10A, the device must be including of graph entering means for accepting an input action to enter an injection graph having chronologically changing injection conditions into the displayed plotting chart image (Figs 3 or 5; the injection rate (ml/s) vs. with different times in sec); graph storing means for storing data of the entered injection graph, for example, it can store the data and make another two or three or many different curves or graphics in the same chart; graph displaying ; graph displaying means for displaying an image of the entered injection graph whose date is stored on said displaying plotting chart image; and injection control means for controlling operation of the injection performing means in real time according to the entered injection graphs. Bae further states that a control console 24 which maybe a LCD display to provide for operator input and control of the injector, and a stand 26 with a base 28 containing the computer or other digital controller (col. 11, lines 35-39). As know that, nowadays, it is very well-known in the LCD display provided the touch panel display.

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As mentioned earlier, Bae also suggests the graphic means for accepting an input action to enter an injection graph having chronologically changing injection conditions in a form of free curve, a plurality of straight lines, plurality of passing points (Figs. 3 & 5).

Bae does not disclose that an operator can directly draw an injection graph into the displayed plotting chart image, and Bae does not show the graph displayed plotting chart image on the touch panel.

Illic discloses a device comprises an instrument for collecting data and which displays the data to a user. The instrument may comprise an input for receiving data from an environment or unit under test, at least one user input device for receiving user input to the instrument, and a display which displays the data as a signal waveform. The user input device may be any of various types such as a pointing device (e.g., a mouse, a digital pen), a keyboard, a touch screen,... The display may also be any of various type, col. 5, lines 1-19 and abstract. The instrument may be operable to display a virtual magnifying symbol (VMS) on the display.... The virtual magnifying symbol preferably has a region in which magnification occurs, such as a circular region, a rectangular region, or other geometric shape, col. 5, lines 20+. As noted, the signal waveform maybe a time domain waveform. In other words, the Illic reference includes graph entering means for accepting an input action for an operator to draw the data/information graph having chronologically changing inputting condition in a form of a free curve, or a plurality of rectangular or other geometric shape region directly into the displayed plotting chart image on the touch panel.

Therefore, one skill in the art would recognize that the Y axis of Illic can be input in any data values such as injection rate for intended use or matter of design choice.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to try or modify the device of Bae with graphic displayed such as plotting chart image on the touch panel, as taught by Illic, for the purpose of intending use or the user able to view the input data changing in different the time period.

Regarding claim 2, a times measuring means; said image displaying means comprising means for displaying said plotting chart image whose vertical axis represents liquid injection rates and horizontal axis represent liquid injection times (Figs. 3 & 5A); said graph entering means comprising means for

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accepting an input action to enter said injection graph which represents a liquid injection rata at each liquid injection time into said plotting chart image; said injection control means comprising means for controlling operation of said injection performing means in real-time according to the measured time and said entered injection graph (col. 11, lines 25+).

Regarding claims 14-15, Bae discloses the invention substantially as claimed. Bae further discloses that the injection performing including a desired interval of an injection routine (claims 1 or 9 of Bae). As interval time, the injection routine or injection pattern must be interrupted or inactivated period. Bae does not clearly performing or entering the period for interrupting the injection of the liquid into the displayed injection graph.

Since Bea is able to bring up the date into the graphic, therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to try or modify the device of Bea with graphic as in claims 5, 14-15 into the display is for the purpose of intending use.

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bae et al. (US 6,055,985) in view of Illic (US 7,443,396) and further in view of Langlotz (US 6,366,683).

Using the same analysis as noted above with regard to claim 1 above, Bae in view of Illic does not disclose a region display means for displaying at least one schematic image of at least one of regions to be imaged of the human body on the touch panel; nor region input means for accepting an input action to select the displayed schematic image of the region to be imaged.

Langlotz discloses a system and method of generating an image analysis report relating to an image of a subject. Langlotz also includes a region displaying means for displaying at least one schematic image of at least one of region to be imaged of the human body on the screen, the region input means for accepting an input action to select the display schematic image of the region to be imaged, see Fig. 2. Langlotz further discloses that the software operates to enable a display any image analyst to call up from database basic identifying information about an image, and to efficiently enter an analysis of the image, col. 4, lines 50-58. Base on this concept of Langlotz, the injection graph for each of the regions to be imaged as for desired purpose. The image map 50 displays a simplified graphic representation of the

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anatomic region in the image being analyzed, col. 6, lines 45+. A section input means for accepting an input action to select one of the displayed schematic images of the body sections; and the region displaying means displays the schematic image of the regions to be imaged in relation to the selected schematic image of the body section. See col. 8, lines 6-20 and lines 39+.

Thus, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Bae in view of Illic with a region display means and region input means, as taught by Langlitz, in order to generate reports of image analyses.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 5, 14-15 and 30-31 have been considered but are moot in view of the new ground(s) rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUYNH-NHU H. VU whose telephone number is (571)272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas D Lucchesi/
Supervisory Patent Examiner, Art Unit 3763

/Quynh-Nhu H. Vu/
Examiner, Art Unit 3763